

The Fourth Industrial Revolution



Year of publication: 2016

Author: Klaus Schwab

160 pages

Do you feel that great innovations are happening much faster nowadays than in other times? Do you believe that, more than what we do or the way we do, these innovations have been changing even who we are?

Do you realize that the relations between countries, companies and society are increasingly closer and interconnected? Well, know that this is really happening and, according to Klaus Schwab, it is exactly what indicates that we are living the Fourth Industrial Revolution.

Find out in this summary the causes, the effects, and how it all can be noted in your daily life.

Main ideas of the book

- Continuously learn, adapt yourself and challenge your own models;
- On-demand economy increases efficiency and productivity;
- "Philosophy of 'always in beta' (always evolving)";
- Strategic thinking about innovations, instead of linear;
- Collaboration between the involved parts, and even between "competitors".

To whom is this book indicated?

In the words of the author, this book was written for "all those with an interest in our future who are committed to using the opportunities of this revolutionary change to make the world a better place".

Leaders and Company Directors can make great use of the valuable tips of how to adapt themselves to the changes of the market. More than that, they will learn how to master the advents of the fourth industrial revolution to extract the most they can offer.

Overview of the book

The Revolution is already happening

Schwab starts the debates about the fourth industrial revolution answering some basic questions, such as **what is it, when did it start, and the challenges it will bring.**

Based on the digital revolution, it began at the turn of the century and is characterized by an omnipresent and more mobile Internet.

It is also called **Industry 4.0**, a term coined in 2011, at the Hannover Messe.

The capital of the companies shows itself less important than in the other industrial revolutions. Companies such as WhatsApp and Instagram didn't need much investment to start. They achieved their success by being disruptive tech companies.

Other examples, like Airbnb, Uber and Alibaba, that a few years ago were unknown, show how the development of innovative companies is getting faster and faster. The iPhone, in just eight years of existence, had already reached two billion units worldwide.

The cost of the technologies used is also decreasing as they develop. At the time the book was released, the cost of 1 GB of storage averaged less than \$0.03 per year. Twenty years earlier, it cost US\$10,000.

The fourth revolution is already a real and inevitable movement. According to the author, in all companies, without exception, the question is no longer "Will there be disruption in my company?" but "When will the disruption occur, how long will it take, and how will it affect me and my organization?"

A physical, digital, and biological revolution

To list trends that identify the technological advances of the fourth industrial revolution, Schwab divides them into three categories, which relate to and benefit from each other's progress.

The physical category covers technologies such as autonomous vehicles, 3D printing, and advanced robotics. Three examples that are no longer rare to find in use today.

The digital category has also been very much in the spotlight, with blockchain, the technology used by the very popular Bitcoin and NFT.

We also have the examples of the **Internet of Things**, which works as a bridge between this category and the previous one, and of the **on-demand economy**, that builds trusting business relationships, at low cost, and offers a wide variety of products and services. These are the cases of the three companies mentioned in the previous chapter.

At last, the biological category, and perhaps the most controversial, brings advances such as gene sequencing, gene editing, and in the future even the creation of "personalized" organisms.

To further specify what we are dealing with in this part, the author brings up a report published in 2015, by the World Economic Forum, which identifies 21 inflection points (moments when certain advances reach society) that will shape the future.

This report was produced through a survey of over 800 executives and experts from the information and communications technology sector.

Here are the 21 points and the percentage of respondents who expect to see these developments by 2025:

1. 10% of people wearing clothes connected to the Internet (91.2% of respondents);
2. 90% of people having unlimited and free storage (91%);
3. 1 trillion sensors connected to the Internet (89.2%);
4. The first robotic pharmacist in the US (86.5%);
5. 10% of reading glasses connected to the Internet (85.5%);
6. 80% of people with a digital presence on the Internet (84.4%);
7. The first 3D-printed car in production (84.1%);
8. The first government to replace its census with big data sources (82.9%);
9. The first implantable mobile phone available commercially (81.7%);
10. 5% of consumer products printed in 3D (81.1%);
11. 90% of the population using smartphones (80.7%);
12. 90% of the population with regular access to the Internet (78.8%);
13. Driverless cars equalling 10% of all cars on US roads (78.2%);
14. The first transplant of a 3D-printed liver (76.4%);
15. 30% of corporate audits performed by AI (75.4%);
16. Tax collected for the first time by a government via a blockchain (73.1%);
17. Over 50% of Internet traffic to homes for appliances and devices (69.9%);
18. Globally, more trips/journeys via car sharing than in private cars (67.2%);
19. The first city with more than 50,000 people and no traffic lights (63.7%);
20. 10% of global gross domestic product stored on blockchain technology (57.9%);
21. The first AI machine on a corporate board of directors (45.2%).

Mind, heart, body and soul

While making it clear at all times that **it is not possible to predict with certainty what will happen**, Schwab sets out to analyze the impacts on the economy, business, governments, society, and on the individual.

In all areas, the word "empowerment" is key. All relationships depend on another party, and it is important that there is collaboration between those involved to get the best out of it.

Because of the inequalities that have long plagued the world, the wage gap between men and women, for example, could widen further. In addition, about 47% of U.S. jobs are at risk because of automation.

The author analyses that "the great beneficiaries of the fourth industrial revolution are the providers of intellectual or physical capital – the innovators, the investors, and the shareholders".

He shows the concern that only a minority will achieve job satisfaction. The younger generations are beginning to seek "harmonious professional integration", rather than just balance, and corporate jobs can end up hindering their search for purpose.

In business, there are four major impacts:

- Customers have new expectations;
- Data improves products and increases productivity;
- The formation of new partnerships, when companies learn the importance of collaboration;
- Operational models are changing into new digital models.

To be able to adapt to innovations, the author indicates the use of four types of intelligence:

- Contextual intelligence is about how to understand and apply knowledge. It makes trend anticipation possible;
- Emotional intelligence concerns the way feelings are processed, and the relationship with others and oneself. It helps to innovate and be an agent of change;
- Inspired intelligence works on how to deal with the feeling of individuality, of shared purpose, and with trust, an important virtue for teamwork;
- Lastly, physical intelligence comes from cultivating personal health and well-being, bringing the necessary energy to the processes. It takes "nerves of steel" to manage such complex challenges.

"In a world characterized by uncertainty, the ability to adapt is critical – if a company is unable to move up the curve, it may be pushed off it"

Finally, it is also important to know when to slow down and simply be silent. With so many new things going on all the time, it is easy to get overwhelmed and put yourself in a constant state of stress.

The author quotes Herbert Simon, winner of the Nobel Prize in Economics in 1978: "**a wealth of information creates a poverty of attention**".

What do other authors say about it?

In the book "**Gestão do Amanhã**", Sandro Magaldi and José Salibi Neto teach that "Your business needs to have two growth engines, that of continuous improvement and that of innovation".

In "**What To Do When Machines Do Everything**", the authors Malcolm Frank, Paul Roehrig and Ben Pring reflect: "In 2030, we will remember many aspects of today's society and think: 'How could we stand that?'".

Author Martha Gabriel points out in the book "**Você, Eu e os Robôs**" that what really matters in a technological revolution is not the technology itself, but how it affects and changes our lives.

Okay, but how can I apply this in my life?

- Be ready for the changes that will definitely happen;
- Redesign your commercial practices to ensure that men and women are equally capacitated in this new phase;
- Direct your strategies more to offering innovative products and services than to reducing costs;
- Start defining and distinguishing tasks well to improve tracking and quality of the data that will be used by the algorithms;
- Academically prepare your workforce to handle the machines;
- Constantly update your knowledge;
- Have the courage to take on big responsibilities, even with the transparency of new technologies;
- Organize strategies to attract and retain competent talent.



If you like this book, visit our complete collection with hundreds of Pocketbooks of the greatest success in the areas of management, marketing and sales, leadership, strategy, personal development and entrepreneurship!

www.pocketbook4you.com

The content presented above reflects the vision and critical analysis of our writing team, respecting the fundamentals of intellectual property in Brazil (article 8, item I).

No part of the book is being copied. They are unique and exclusive content, always giving credit to the authors and indicating the link to purchase the complete work. PocketBook4You respects the copyright code in accordance with Brazilian law, Law 9.610 / 98.

This content is the exclusive property of PocketBook4You and is protected by Copyright Law in its articles 46, I, (a) and its article 47, because it is not reproduction and do not imply any discredit, on the contrary, The moral right is protected and, as noted earlier, the reader receives a link to acquire the work. Reproduction of this material without permission of the company is prohibited.